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ABSTRACT

Designed to determine a reader's ability in processing information relationships in written discourse in English, the extended-cloze instrument consists of six reading passages, each with four complete sentences deleted. Students read each passage and select the best of four multiple choice alternative sentences for each deletion. The instrument contains two subtests: three passages measuring processing of hierarchical order, and three measuring spatial/chronological order. The instrument is felt to be particularly appropriate for ESL students, but may also be used with dialect and native speakers. (This document is one of those reviewed in The Research Instruments Project (TRIP) monograph "Measures for Research and Evaluation in the English Language Arts, Volume 2," published by the Committee on Research of the National Council of Teachers of English in cooperation with the ERIC Clearinghouse on Reading and Communication Skills. The TRIP review, included here as an introduction to the instrument, describes the instrument's category (reading), title, author, date, age range (adult, ages 18-35, and possibly high school), purpose, and physical characteristics.) (HTH)

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ED236640

Extended-Cloze Reading Skills Test of Hierarchical and Spatial/Chronological Ordering Ability.

The measurement instruments contained in this document have been reviewed in a monograph (cited below) edited by William T. Fagan, Charles Cooper, and Julie Jensen, for The Research Instruments Project (TRIP), and funded by a grant from the Trustees of the NCTE Research Foundation:

Measures for Research and Evaluation
in the
English Language Arts
Volume II

The purpose of the editors has been to select and review measurement instruments pertaining to all aspects of research and evaluation in the English language arts, e.g. language and language development, literacy, literature, reading (including comprehension, teacher-pupil interaction, etc.), writing, and teacher knowledge and attitudes. In order to make some of the actual instruments reviewed more readily available, the ERIC Clearinghouse on Reading and Communication Skills (ERIC/RCS) has cooperated with the editors by processing selected instruments into the ERIC system (see the 42 documents assigned Clearinghouse accession numbers CS 207 904-945).

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CS 207915

Category: Reading

Title: Extended-cloze Reading Skills Test of Hierarchical and Spatial/Chronological Ordering Ability

Author: Anne V. Martin

Age Range: Adults (ages 18-35) and possibly high school

Description of the Instrument:

Purpose: To determine readers' ability in processing information relationships in written discourse in English. It is particularly appropriate for ESL students but may also be used with dialect and native speakers.

Physical description: The extended-cloze instrument consists of six reading passages (230-300 words long), each with four sentences deleted from the written text (a total of 24 items). Extended-cloze is defined as deletion of entire sentences, rather than of individual words as in traditional cloze procedures, from unified discourse in written English. Students read each passage and select the best of four multiple-choice alternative sentences for each deletion. The instrument contains two subtests: three of the passages measure processing of hierarchical order; three measure processing of spatial/chronological order. Hierarchical (H) order is defined as a developmental sequence of concrete or abstract ideas in written English, consisting of steps along a continuum of general to specific information. Spatial/chronological (S/C) order is defined as a developmental sequence in written English in which objects and/or events are related in space and/or time.

The sample item with instructions is given below:

This exercise consists of six fictional reading passages with deleted sentences. Deletions are indicated with a long line. There are four possible sentences given for each deletion.
Each time read the entire passage. Then go back to the first deletion. Read the four possible answers. Choose the best one and circle its letter on the answer sheet which is provided. Go on to the next deletion in the passage. After you finish the items in the passage, go on to the next passage.

"Fairfield has many green areas within its city limits. One of the most beautiful places is Wilson Park. _____. People from all over Fairfield visit the park and enjoy themselves."

a. The North Fork River is another spot.

b. There are other green spots in and near the city of Fairfield.

c. It has picnic grounds and wide open grassy spaces.

d. The statue near the parking lot was created by a French artist.

Validity, Reliability, and Normative Data:

Construction of the passages was based on five design criteria:

1. All contextual locations are fictional and as non-culture-specific as possible. Concepts used in the passages (e.g., satellite, boat, college campus) are familiar to students for whom the instrument is suitable, both native and non-native speakers of English.
2. Vocabulary items do not pose barriers to comprehension. In addition to extensive screening using ESL students, the vocabulary items were checked against the Brown Corpus (Kučera & Francis, 1967). All but 2.7% (19 words) are high-frequency terms, and in context, the remaining 19 words (e.g., canoe, sofa) do not pose comprehension problems for students.
3. Readability levels were measured using the Fry Readability Graph (Fry, 1969). All passages range from mid-tenth to low-twelfth grade level, with three of the passages at the eleventh grade level.
4. Sentence structure complexity was controlled to minimize the number of embeddings, relative clauses, verb forms, and verb tenses, but to retain natural-sounding language. Mean length of sentences is 16 (range 6-27 words).
5. Obvious transitional expressions such as "First," "The second type is..." which might provide clues to the appropriate response were omitted from items and passages, except where essential to the flow and coherence of written English.

In constructing the response choices for the H items, all four alternatives to each item were selected so that they were contextually appropriate and "equally plausible;" they differ in hierarchical appropriateness. Each deleted sentence (keyed response) is a step in the continuum of general to specific information in the passage. For each item there are three distractors:

1) too general for that point in the context
2) too specific for that point in the context
3) irrelevant, a violation of native-speaker expectation of appropriate information for that position, taking into account information both preceding and following the deletion.

For two items, discourse constraints made one distractor of type 1 and one of type 2 impossible; in these cases there are two of either type 1 or 2.

For each of the S/C items, all four alternatives for each item are appropriate to the context but the three distractors are inappropriate spatially or chronologically within the particular discourse setting. That is, a native speaker of English would expect reference to a certain spatial or temporal event (as given in the keyed answer) to follow information preceding the deletion and to precede information in subsequent sentences.

An item analysis based on the responses of 438 college students (212 native speakers and 226 non-native speakers of English) showed point biserial

coefficients for all items within each subtest [$r_{pbis}(436) \geq .196$] with $p > .05$. The phi coefficients range (.19 - .44) all exceeded .01 level using chi-square as the test of significance.

A factor analysis confirmed cross-cultural validity (the same underlying factor structure for native and non-native speakers of English), and the presence of two subtests associated with items designated as H or S/C. Through factor analysis also, construct validity was established for spatial/chronological ability. A factor interpretable as hierarchical ordering ability was not identified, although it was established that the H section measures some distinct underlying construct(s).

Reliability based on the Kuder-Richardson formula pooled for the 438 subjects yielded coefficients of .76, .55, and .70 respectively for the 24-item instrument, the 12-item H subtest, and the 12-item S/C subtest.

References:

Fry, E. A readability formula that saves time. Journal of Reading, 1968, 11 (7), 513; 575-578.

Kučera, H., & Francis, W.N. Computational analysis of present-day American English. Providence, Rhode Island: Brown University Press, 1967.

Martin, A.V. Proficiency of university-level advanced ESL students and native speakers of English in processing hierarchical information in context. Doctoral dissertation, (unpublished), University of Southern California, 1980. (Available from Micrographics Department, U.S.C., Los Angeles, CA. 90007).

"Extended-Cloze Reading Skills Test of Hierarchical and Spatial/Chronological Ordering Ability"

INSTRUCTIONS

This exercise consists of six fictional reading passages with deleted sentences. Deletions are indicated with a long line. There are four possible sentences given for each deletion.

EACH TIME, READ THE ENTIRE PASSAGE. Then go back to the first deletion. Read the four possible sentences. Choose the best one and circle its letter on the answer sheet which is provided. Go on to the next deletion in the passage. After you finish the items in the passage, go on to the next passage.

Try the following example, and mark your choice for EX.1 on the answer sheet.

EXAMPLE:

Fairfield has many green areas within its city limits. One of
EX.1 the most beautiful places is Wilson Park. _____
_____. People from all over Fairfield visit the park and enjoy themselves.

EX.1 a. The North Fork River is another spot.
b. There are other green spots in and near the city of Fairfield.
c. It has picnic grounds and wide open grassy spaces.
d. The statue near the parking lot was created by a French artist.

DO NOT MAKE ANY MARKS ON THIS BOOKLET.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO BEGIN.

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Transportation in the Nation of Vereat

The nation of Vereat is a very large country which has many lakes and rivers, several large cities separated by long distances, and some very isolated areas. Consequently, water, land, and air travel are all important.

1. Various kinds of boats are used on the rivers and lakes. _____ _____. In addition, native residents and tourists often travel on special cruise boats for pleasure trips.

Although water transport is important, most transportation in Vereat

2. occurs on land. _____. In the cities and towns, cars are used for commuting and for family travel. Buses are used by many people to get rapidly from one place to another within the same city or to travel between cities. In the rural areas, horses and donkeys are used to carry loads and people.

3. _____. Planes carry goods and people between major cities. Helicopters are used to get to remote, relatively uninhabited areas of the country.

In a country which is very spread out, many forms of transportation are needed. In Vereat, old methods such as the horse and donkey have now been

4. supplemented by newer methods like the car and airplane. _____ _____.

1. a. Boats are a common sight on all principal rivers and are used to get from one side of a lake to the other.
   b. Large steam boats, motor boats and sometimes even canoes transport materials, products, and people.
   c. The "River Queen" boat makes weekly trips across the nation's biggest lake and down the river to the capital city.
   d. Tourists from many countries use Vereat's water routes to get to Diamond Falls and other famous scenic areas.

2. a. The Toyota and the Volkswagen are the two most popular cars.
   b. Vehicles and animals are used according to the purpose and the location.
   c. Vereat has a land area of 100,000 square miles and a population of 14,000,000.
   d. Transportation in Vereat is difficult because many areas are separated by mountains.

3. a. Vereat does not manufacture airplanes and has to import them from other countries.
   b. Air travel connects populated areas and provides access to sparsely populated regions.
   c. The horses do not like the sound of airplanes which fly over the rural areas.
   d. The largest airline, National Vereat Airlines, flies to the neighboring countries from the capital city.

4. a. New industries must be developed in the future to reduce Vereat's dependence on imports.
   b. The Vereat Air Force and Army use a variety of vehicles for military purposes.
   c. Many people believe that Vereat is one of the regions in which the horse was first used for transport of goods.
   d. Transportation by water, land, and air provides efficient movement of goods and people in Vereat.

The Growth of Cape College

In 1965 when Cape College began operation, it consisted of several hundred students and one building. Today the college serves thousands of students on a large modern campus.

Cape College received permission early in 1965 to use an old vacant building. Before the building could be occupied, however, numerous preparations needed to be made. In the spring, two large rooms were subdivided into offices, and the building was thoroughly cleaned and painted

1. inside and out. _____. In the fall of 1965 the building was ready for use, and Cape College formally opened

2. with 300 students. _____. More classroom space was needed, and two temporary buildings were rented to handle additional classes.

By 1970 it was impossible for Cape College to accommodate all the students who desired to attend. The college organized a fundraising campaign

3. for a new campus. _____. In 1973, construction of the new campus began. The decision was made to complete a large classroom building and an administration building first. Both structures were ready for occupancy in 1974, and that fall over 1500 students attended Cape College. Construction continued on other principal buildings, including a student center and a library. The student center was

4. ready for use in the fall of 1975. _____.

Both the student body and campus have grown since then. Today there are nearly 3000 students attending Cape College, and the new campus has ten major buildings, with several others under construction. Now only a few students and staff members recall the early years of Cape College before the new campus was built.

1. a. The city decided to build a high school nearby two years later.
   b. In 1968 several rooms were repainted and the roof was repaired.
   c. That summer classroom equipment and office furniture were purchased.
   d. The building was used by a local women's club in the 1950s.

2. a. The new campus was constructed many years later.
   b. All of the students moved to the new campus in 1974.
   c. Nearly twice as many students enrolled a year later.
   d. A committee met in 1963 to plan a local college.

3. a. The following year a science laboratory was completed..
   b. A large area of abandoned farmland was purchased in 1972.
   c. A year after opening, the college hired more instructors.
   d. In 1976 an architect was paid to design the central plaza.

4. a. In 1973 the library began to serve students.
   b. Two years earlier the library was completed.
   c. The library was constructed in 1970.
   d. The library opened the following spring.

Effects of Modernization in the City of Raboti

The city of Raboti is rapidly becoming a modern city. Although there are numerous advantages to its modernization, there are also many
1. disadvantages. _____.

The situation has three primary causes. First, the number of cars on
2. the road has increased rapidly and is still increasing. _____
_____. Everyone drives his car as often as possible in order to be seen by other people. The number of cars is a big problem
3. partly because of the narrowness of many old streets. _____
_____. New roads are being constructed in the suburbs, but few old city streets have been widened. Finally, many drivers are careless and cause numerous accidents. As a result, there is more congestion, and it takes longer to get somewhere.

The number of automobiles in Raboti has not been regulated and will continue to increase, but several solutions seem possible. Drivers should be legally forced to be more careful; for example, anyone who causes a major accident should lose his license. More stoplights should be placed in the
4. business district at major intersections. _____
_____. Finally, a number of old streets should be widened to reduce traffic jams. Traffic congestion will likely continue to be a big problem in Raboti until those changes occur.

1. a. One result of rapid growth is that many aspects of daily life have become more complex.
   b. Traffic accidents make it hard to get to work or school on time.
   c. Agriculture is no longer popular, and many farmers are moving to the city to find work.
   d. One of the most visible consequences of development is traffic congestion.

2. a. A large shipment of new cars arrived last month at the Port of Raboti.
   b. Owning an automobile, especially a large one, is a sign of success.
   c. Large cars are more expensive than small cars but hold a lot of people.
   d. Cars are used all over the world both for business and for pleasure.

3. a. Many streets lead to the marketplace in the center of the city.
   b. The streets were intended for travel on foot and are not suitable for automobile traffic.
   c. Central Street in Raboti carries a lot of traffic every day.
   d. In some cities, old streets have been reconstructed and turned into major shopping districts.

4. a. At many intersections, more than two streets cross each other.
   b. Devices which are used to regulate traffic include stoplights and stop signs.
   c. The stoplights at several downtown intersections are not working.
   d. Stoplights would help control the flow of traffic, especially at rush hours.

A Furnished Apartment

As one first enters Roger's furnished apartment, it seems relatively small. Located to one's right is the kitchen, which contains a refrigerator, stove, oven, and numerous cupboards. Conveniently positioned at one end of
1. the kitchen is a dinette table and chair set. _____
_____. The major pieces of furniture are a dark green sofa, and adjacent to it, a matching green chair. An attractive Victorian-style lamp is situated on an endtable on the other side of the chair. Decorating the wall above the sofa is a colorful modernistic painting. Along the opposite wall is a fireplace, and to one side of it is a built-in bookcase.
2. _____.
Sunlight enters through a large unscreened window at the far end of the living room. A door beside the window opens to a small balcony, which already holds Roger's extensive cactus collection. Re-entering the living room, one notices a flowering plant hanging near the doorway to a hall.
3. _____. The bedroom, which overlooks the parking area, contains a good-sized bed, a chest of drawers, a contemporary orange chair, and a bedside table. Along the wall near the door there is a generous clothes closet. Adjoining the bedroom is the
4. bathroom, which is small but adequate. _____
_____.
The apartment is not very large, but because of its sunny living room and excellent storage facilities, it seems more spacious than it actually is. It certainly is a comfortable, well-equipped apartment for a busy student.

1. a. There is a small table in the hall between the bathroom and kitchen.
   b. Roger prefers to use his electric frying pan instead of the stove.
   c. The kitchen opens into the living room, the apartment's largest room.
   d. The apartment is heated by a centrally located gas furnace.

2. a. On the other side there are several shelves suitable for a stereo.
   b. The other rooms in the apartment are painted an off-white color.
   c. One can occasionally hear impatient drivers honking far below.
   d. A white telephone is mounted on the wall in the kitchen.

3. a. The hall outside Roger's apartment is sometimes noisy at night.
   b. The two-bedroom apartment next door is considerably larger.
   c. Roger bought a hand-woven bedspread last year while on vacation.
   d. As one goes down the hall, the bedroom is on the right.

4. a. In the narrow hall heading back to the front entrance, there is a coat closet.
   b. People are not permitted to have pets in the apartment building.
   c. From the living room, Roger has a view of other apartments and can see city lights at night.
   d. Every floor has a long hallway with a flight of stairs at each end.

International Communications in the Country of Litaria

Today international communication has become so well developed that residents of Litaria can be connected to almost anyone anywhere in the world

1. in just a few seconds. _____.

Shortwave is the oldest method. A communication circuit using shortwave can be made easily and cheaply. However, speech quality of the circuit is very poor. Today shortwave is used in the country of Litaria in only a few circuits.

2. _____. Cables laid on the floor of the ocean are the most expensive of all the devices used, but their use provides the best speech quality. At present, two ocean cables connect Litaria

3. with other countries. _____. Plans are being made to construct additional cables in the near future.

The most recent method of communication between countries is the satellite. A satellite link consists of an earth station in each country, plus a satellite. There are two earth stations in Litaria, one near the city

4. of Pitas and the other near the city of Quala. _____ _____.

Satellite links offer Litaria the most flexibility for extensive international communication, but ocean cables are necessary in case of a breakdown in the satellite links. Shortwave links are still useful for temporary communication, for example, communication with a base on a remote island. Each device offers advantages for different purposes and thus all three will be used in Litaria for many years to come.

1. a. The shortwave system used in many parts of the country is very old.
   b. In the past, most communication was by personal contact or written messages.
   c. The cost of an international phone call has decreased in the last ten years.
   d. Several devices are used for international transmission of signals.

2. a. There are many types of cables used in modern communication.
   b. Another device used in international communication is the ocean cable.
   c. Ocean cables consist of many wires grouped tightly together.
   d. Litaria is almost surrounded by the Tup Ocean, one of the world's largest oceans.

3. a. A long cable goes between Litaria and the nation of Rufius, and another connects Litaria with the Satrian Republic.
   b. Long ocean cables are frequently used to improve communication.
   c. When compared to ocean cables, shortwave in Litaria is generally a very inadequate system.
   d. Ocean cables need to be supplemented by other communication methods.

4. a. Earth stations send signals to a satellite, which is a very complex communication device.
   b. A satellite transmits signals from Litaria's stations to stations in other parts of the world.
   c. The Pitas station is located in a mountainous region in the center of Litaria.
   d. Earth stations and satellites are important for communication with many other parts of the world.

Exploring the Public Library

Last weekend I decided to explore the community library six blocks from my apartment. As I entered I saw the central information and checkout desk. The desk divides the library into three areas: the children's section, the reference section in back of the desk, and the adult section.

I first visited the children's section, a cheerful area intended for children of many ages. The area contains books organized according to
1. reading level and type, clearly identified with hand-printed signs. _____ _____. In the middle of the children's area there are colorful tables, some with book exhibits on them. In the corner is an area reserved for storyhour for young children. On the afternoon I visited the library, there were several dozen children eagerly selecting books, reading, or listening attentively to a story.
2. _____. The contents of the reference area are familiar to most people: a card catalog, indexes, dictionaries, and other reference materials. The section's special features are an extensive collection of artwork and another of record albums.

Just beyond the reference section is the adult section, containing hundreds of books on almost every subject. I walked past sections on
3. astronomy, history, and travel, to mention a few. _____ _____. During my visit, many adults ranging from young adult college students to elderly citizens were reading in the library.
4. _____. I left the public library feeling that it successfully meets diverse needs of the community it serves.

1. a. The librarian at the information desk used to be a highschool teacher.
   b. One can see the adult section on the other side of the checkout desk.
   c. Light green is a good color for the library because it does not hurt one's eyes.
   d. On the walls there are displays of artwork drawn by local children.

2. a. As I watched, a group of teenagers came in, looked around for friends, and left.
   b. I located the drinking fountain near the front entrance and got a drink of water.
   c. As I left the children's area to go to the adult section, I passed through the reference section.
   d. I looked at the library's photocopy machine, which is conveniently located in the adult section.

3. a. On shelves along one side of the section are recent issues of magazines and newspapers.
   b. I noticed a room at the back of the library used for community meetings.
   c. There is a small section of travel books for young readers in the children's area.
   d. Through the window nearby I could see my bicycle parked in front of the library.

4. a. I noticed several signs which asked people to be quiet in the library.
   b. I saw a young man choose several records to check out.
   c. When I was a child, I used to read adventure stories and biographies.
   d. I turned back past the main desk toward the front entrance.

ANSWER SHEET

Circle the letter corresponding to the best answer.

Example

EX.1. a b c d

Transportation in the Nation of Vereat

1. a b c d
2. a b c d
3. a b c d
4. a b c d

The Growth of Cape College

1. a b c d
2. a b c d
3. a b c d
4. a b c d

Effects of Modernization in the City of Raboti

1. a b c d
2. a b c d
3. a b c d
4. a b c d

A Furnished Apartment

1. a b c d
2. a b c d
3. a b c d
4. a b c d

International Communications in the Country of Litaria

1. a b c d
2. a b c d
3. a b c d
4. a b c d

Exploring the Public Library

1. a b c d
2. a b c d
3. a b c d
4. a b c d